

## **DIKE**

### **Design Survey**

The following information shall be obtained and recorded in the field notes:

- a. Centerline profile and needed cross-sections.
- b. Necessary topographic information.
- c. Profile and cross section of channel where required.
- d. Material (soil) available.

### **Design Data**

The following shall be considered minimum in the design of all dikes. The information shall be recorded in the design notes. Appropriate data will be transferred to the construction drawings.

- a. Hydrology
- b. Hydraulics of channel.
- c. Cross section and design height.
- d. Slope protection and protection from livestock.
- e. Required conduits or structures.
- f. Volume computations.
- g. Evidence of State & Federal regulations including NEPA requirements have been met.
- h. Material (soil) used.
- i. Slope stability.

### **Drawings and Specifications**

The construction drawings shall include, but will not be limited to the following:

- a. Overall plan.
- b. Profile and representative cross-section.
- c. Conduit or structure location and alignment.
- d. Location map.
- e. Construction materials.
- f. Compaction required.

Practice specifications and, if needed, "Items of Work and Construction Details" shall be provided for each item or phase of construction. Uncomplicated jobs may have specifications placed on the drawings.

### **Layout Survey**

The following information shall be recorded in the field notes. For small Class III dikes, this phase may be combined with the design survey.

- a. Centerline stakes.
- b. Slope stakes with offset stakes.
- c. Grade and alignment for conduits and structures.

### **Compliance Checks**

The complexity of the structure will dictate the need for compliance checks during construction. All compliance checks shall be recorded in the field notes. Narratives of construction checks shall be recorded in a job diary or on a sheet in the field notes. Compliance checks shall include but will not be limited to the following:

- a. Profile of dike (maximum interval of 100 feet).
- b. Cross-sections (maximum interval of 500 feet).
- c. Elevations and alignment of conduits and structures.
- d. Materials.
- e. Slope protection.
- f. Compaction achieved.
- g. Statement of compliance.

### **As-Built Plans**

As-Built plans shall be prepared for all dikes. These drawings shall reflect all significant changes in linear measurements, quantities, alignments or design changes. If there are no significant changes, the original drawings shall be marked "As-Built".